abcam

ab171972

Anti-CacyBP antibody [EPR12374]

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12374
Purification technique	Affinity purification Protein A
Concentration	0.124 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information CACYBP

Function	May be involved in calcium-dependent ubiquitination and subsequent proteasomal degradation of target proteins. Probably serves as a molecular bridge in ubiquitin

E3 complexes. Participates in the ubiquitin-mediated degradation of beta-catenin (CTNNB1).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CacyBP also known as Calcyclin Binding Protein is involved in various cellular processes and interactions. This protein has a molecular mass of about 30 kDa. It is broadly expressed in many tissues including the brain where it plays significant roles. CacyBP interacts with several other proteins impacting cellular structures and functions through complex interactions.
Biological function summary	CacyBP regulates key cellular functions by interacting with signaling pathways and cytoskeletal elements. It can form part of multi-protein complexes influencing the

	stability and structure of cytoskeletal components. CacyBP also modifies proteins by dephosphorylation impacting processes such as cell division and differentiation. These functions underline its involvement in cellular maintenance and dynamic processes.
Pathways	CacyBP participates in cellular signaling and protein degradation pathways. It plays a role in the ubiquitin-proteasome pathway by mediating the degradation of specific substrate proteins. This protein associates with Siah-1 an E3 ubiquitin-protein ligase emphasizing its function in this pathway. CacyBP is also linked to ERK1/2 signaling pathways interacting with proteins like ERK2 to modulate cell proliferation and differentiation.
Associated diseases and disorders	CacyBP has connections to cancer and neurodegenerative diseases. In cancer CacyBP influences tumor growth and progression by affecting cell cycle regulation and apoptosis. It interacts with proteins such as p53 which play roles in cell cycle control and tumor suppression. In neurodegenerative diseases like Alzheimer's altered CacyBP expression levels have been observed implicating it in the disorder’s pathology through interactions with tau protein.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

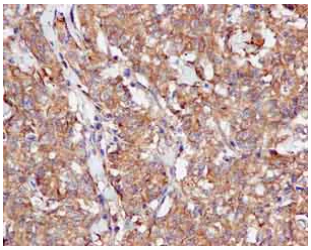
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

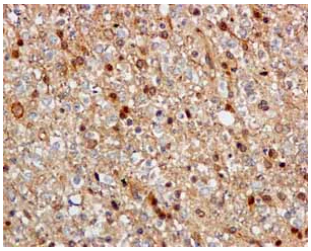
8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CacyBP antibody [EPR12374] (ab171972)

CacyBP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CacyBP antibody

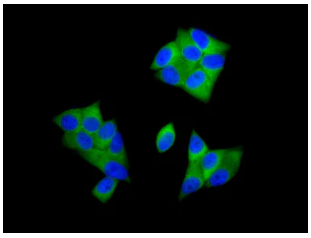
Immunohistochemical analysis of paraffin-embedded Human gastric carcinoma tissue labeling CacyBP with ab171972 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CacyBP antibody [EPR12374] (ab171972)

CacyBP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CacyBP antibody

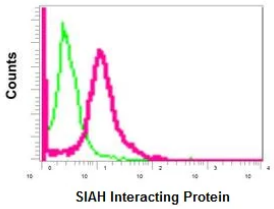
Immunohistochemical analysis of paraffin-embedded Human gliocytoma tissue labeling CacyBP with ab171972 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-CacyBP antibody [EPR12374] (ab171972)

CacyBP Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CacyBP antibody

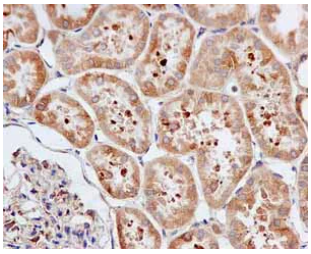
Immunofluorescent analysis of MCF7 cells labeling CacyBP with ab171972 at 1/100 dilution. DAPI nuclear staining (blue).



Flow Cytometry (Intracellular) - Anti-CacyBP antibody [EPR12374] (ab171972)

CacyBP Flow Cytometry (Intracellular) staining using rabbit Anti-CacyBP antibody

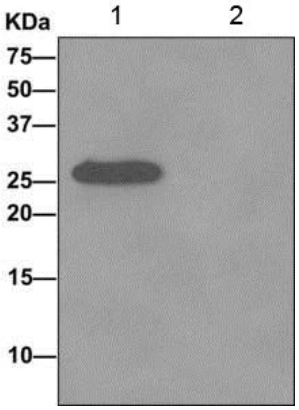
Intracellular flow cytometric analysis of permeabilized 293T cells labeling CacyBPwith ab171972 at 1/10 dilution (red) orRabbit IgG (negative) (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CacyBP antibody [EPR12374] (ab171972)

CacyBP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CacyBP antibody

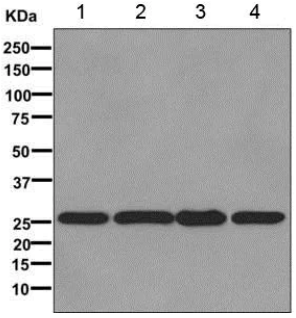
Immunohistochemical analysis of paraffin-embedded Human Kidney tissue labeling CacyBP with ab171972 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-CacyBP antibody [EPR12374] (ab171972)

Western blot analysis on immunoprecipitation pellet from 293T cell lysate (lane 1) labeling CacyBP with ab171972 at 1/10 dilution or 1X PBS (lane 2) negative control. HRP-conjugated anti-Rabbit IgG preferentially detecting the non-reduced form of Rabbit IgG.
All lanes:
Immunoprecipitation - Anti-CacyBP antibody [EPR12374] (ab171972)

Predicted band size: 26 kDa



Western blot - Anti-CacyBP antibody [EPR12374] (ab171972)

All lanes:
Western blot - Anti-CacyBP antibody [EPR12374] (ab171972) at 1/10000 dilution

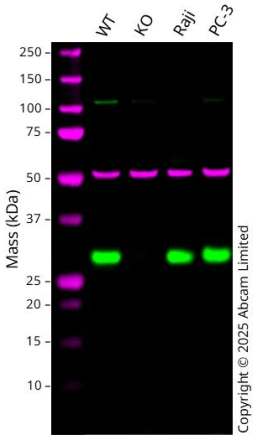
Lane 1:
MCF7 cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Lane 3:
293T cell lysate at 10 µg

Lane 4:
PC3 cell lysate at 10 µg

Predicted band size: 26 kDa



Western blot - Anti-CacyBP antibody [EPR12374] (ab171972)

CacyBP Western blot staining using rabbit Anti-CacyBP antibody

Western blot: Anti-CacyBP antibody [EPR12374] ab171972 staining at 1/10000 dilution, shown in green; Mouse anti alpha Tubulin ab7291 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 30 kDa in Wild-type A549 cell lysates with no signal observed at this size in CACYBP knockout A549 cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-CacyBP antibody [EPR12374] (ab171972) at 1/10000 dilution

Lane 1:
Wild-type A549 at 20 µg

Lane 2:
CACYBP knockout A549 at 20 µg

Lane 3:
Raji at 20 µg

Lane 4:
PC-3 at 20 µg

Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 26 kDa

Observed band size: 30 kDa, 52 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.